MATERIAL SAFETY DATA SHEET

DATE PREPARED: 12/13/1996
MSDS No: S00012687

1. Chemical Product and Company Information

Product Name: KELZAN® KELZAN® AR, D, HP, M, MU, S, SHP, T, XC, XCD; XANVIS®

Chemical Name: Xanthan Gum

Synonyms: Various other suffixes and K designations may also exist. See Product Label

Chemical Family: Polysaccharide Gum

THE NUTRASWEET KELCO COMPANY, 8355 AERO DR., SAN DIEGO, CA 92123

FOR CHEMICAL EMERGENCY, SPILL LEAK, FIRE, EXPOSURE, OR ACCIDENT

Call **CHEMTREC** - Day or Night - 1-800-424-9300 Toll Free in the continental U.S., Hawaii, Puerto Rico, Canada, Alaska, or Virgin Islands. For calls originating elsewhere: 703-527-3887 (collect calls excepted) **OR** Call The Nutrasweet Kelco Company - 8 a.m. - 5 p.m. (Pacific Time) weekdays - 619-292-4900. For other hours or days call 619-232-0604

For additional non-emergency information, call: 800-535-2687

2. Composition/Information on Ingredients

Component	CAS NO.
Xanthan Gum	11138-66-2

3. Hazards Identification

EMERGENCY OVERVIEW

Appearance and Odor: White to Tan powder with slight odor

WARNING! COMBUSTIBLE DUST

POTENTIAL HEALTH EFFECTS

Likely Routes of Exposure: Skin contact and inhalation

Eye Contact: No more than slightly irritating based on toxicity studies. Prolonged contact with the dry powder may cause drying or chapping of the skin.

Inhalation: Inhalation of the dust may cause coughing and sneezing.

Ingestion: Is not toxic if swallowed toxicity studies. No significant adverse health effects are expected to develop if only small amounts (less than a mouthful) are swallowed.

Refer to Section 11 for toxicological information.

4. First Aid Measures

If in Eyes or on Skin: Immediate first aid is not likely to be required. However, this material can be removed with water. Wash heavily contaminated clothing before reuse.

If Inhaled: Immediate first aid is not likely to be required. However, if symptoms occur, remove to fresh air. Remove material from eyes, skin and clothing.

If Swallowed: Immediate first aid is not likely to be required. A physician or Poison Control Center can be contcted for advice. Wash heavily contaminated clothing before reuse.

5. Fire Fighting Measures

Flashpoint: Not applicable

Extinguishing Media: In case of fire, use water, dry chemical, CO2, or alcohol foam.

Hazardous Products of Combustion: Carbon Dioxide, Carbon Monoxide

Unusual Fire and Explosion Hazards: This material as normally packaged and handled can contain sufficient fines to form an explosive mixture if dispersed in a sufficient quantity of air. Surfaces that may be covered with this product will become extremely slippery upon application of water.

Fire Fighting Equipment: Fire Fighters and others exposed to products of combustion should wear self-contained breathing apparatus. Equipment should be thoroughly decontaminated after use.

6. Accidental Release Measures

In case of spill, do not blow material. Use vacuum equipment designed specifically for handling combustible dusts.

Note: The use of water wash down is not recommended unless the spilled material is already wet. Wet material on a walking surface will be extremely slippery. Wet spills should be thoroughly flushed with water until non-slippery.

Refer to Section 13 for disposal information and Section 15 for reportable quantity information.

7. Handling and Storage

HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICES. THESE PRACTICES INCLUDE AVOIDING UNNECESSARY EXPOSURE AND REMOVAL OF MATERIAL FROM EYES, SKIN, AND CLOTHING.

Keep away from heat, sparks and flame. Avoid creating dust cloud in handling transfer and clean up.

8. Exposure Controls/Personal Protection

Eye Protection: This product does not cause significant eye irritation or eye toxicity requiring special protection. Use good industrial practice to avoid eye contact.

Skin Protection: Although this product does not present a significant skin concern, minimize skin contamination by following good industrial practice. wearing protective gloves is recommended. Wash hands and contaminated skin thoroughly after handling.

Respiratory Protection: Avoid breathing dust. Use NIOSH/MSHA approved respiratory protection equipment when airborne exposure limits are exceeded (see below). Consult the respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH/MSHA or the manufacturer Respiratory protection programs must comply with 29 C.F.R. 1910.134.

Ventilation: Provide natural or mechanical ventilation to control exposure levels below airborne exposure limits (see below). The use of local mechanical exhaust ventilation is preferred at sources of air contamination such as open process equipment. Consult NFPA Standard 91 for design of exhaust systems.

AIRBORNE EXPOSURE LIMITS:

OSHA and ACGIH have not established specific exposure limits for this material. However, OSHA and ACGIH have established limits for particulates not otherwise regulated (PNOR) and particulates not otherwise classified (PNOC) respectively, which are the least stringent exposure limits applicable to dusts.

OSHA PEL	ACGIH TLV
15mg/m3 (total dust) 8-hr TWA	10mg/m3 (inhalable) 8-hr TWA
5mg/m3 (respirable) 8-hr TWA	3mg/m3 (respirable) 8-hr TWA

9. Physical and Chemical Properties

Molecular Weight: Approximately 1,000,000

Appearance: White to tan powder

Odor: Slight

pH: Approximately neutral (as a 1% solution)

Bulk Density: Approximately 50 lb./cu. ft.

Solubility in Water: Soluble, forming a viscous solutions, becoming a paste at concentrations greater than about 5%

NOTE: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

10. Stability and Reactivity

Stability: Product is stable under normal conditions of storage and handling. Store in a cool, dry place to maintain product performance.

Materials To Avoid: Strong oxidizers

Hazardous Decomposition Products: Thermal decomposition products may include carbon dioxide and carbon monoxide.

Hazardous Polymerization: Will not occur.

11. Toxicological Information

The dry powder may cause foreign body irritation in some individuals. Prolonged contact with the dry powder may cause drying or chapping of the skin. Excessive inhalation of dust may be annoying and can mechanically impede respiration. Due to the hygroscopic properties of the gums, they can form a paste or gel in the airway.

Data from laboratory studies conducted by The NutraSweet Kelco Company and from the scientific literature with this material are summarized.

Oral - rat LD50: >5,000 mg/kg

Eye Irritation - rabbit: not irritating

Skin Irritation - rabbit: not irritating

No skin allergy was observed in guinea pigs following skin exposure.

No adverse effects were observed in long-term feeding studies with rats (up to 1,000 mg/kg/day) and dogs (up to 1,000 mg/kg/day). No adverse effects were observed in a 3 generation reproduction study with rats (up to 500 mg/kg/day).

12. Ecological Information

The following data have been classified using the criteria adopted by the European Economic

Community (EEC) for aquatic organism toxicity. A legend summarizing the classification scheme appears below.

96 - hr LC50; rainbow trout: 490 mg/L; practically nontoxic

48 - hr LC50; Daphnia Magna: 980 mg/L; practically nontoxic

96 - hr LC50; Mysid shrimp, using 2 lb./bbl. xanthan gum in standard drilling mud: >500,000 ppm suspended particulate phase.

Legend for Aquatic Organism Toxicity (Journal of the European Communities, Annex VII A, Section 5.2.1)

Values	Classifications
LC50 or EC50 < or = 1.0 mg/L	Very Toxic
LC50 or EC50 > 1.0 mg/L and < or = 10 mg/L	Toxic
LC50 or EC50 > 10 mg/L < or = 100 mg/L	Harmful
LC50 or EC50 > 100 mg/L	Practically Nontoxic

BOD5 is approx. 200 mg O2/gram. COD is approx. 1600 mg O2/g.

13. Disposal Considerations

Discarded material is not considered a hazardous waste under California regulations (Title 22, CAC). also, the NutraSweet Kelco Company is unaware of any local, state, or federal regulations which define this product or its ingredients as hazardous. Dispose of in accordance with local, state, or federal regulations. Dry or wet solid material can be landfilled in accordance with local, state, and federal regulations. Liquids may be sewered in accordance with local, state, and federal regulations if care id taken to avoid pluggage or blockage of sewer systems recognizing that these materials are intended to increase viscosity and form gels. As a carbohydrate, this material should be readily biodegradable, when at low concentrations, in a biological wastewater treatment plant.

14. Transport Information

The data provided in this section is for information only. Please apply the appropriate regulations to

properly classify your shipment for transportation.

The product is not hazardous under the applicable DOT, OCAO/IATA, or IMDG regulations.

15. Regulatory Information

The ingredients of this product are on the TSCA Chemical Substances Inventory, the Canadian Domestic Substances List, and are included in the European Inventory of Existing Commercial Chemical Substances (EINECS).

Sara Hazard Notification

Hazard Categories Under Title III Rules (40 CFR 370): fire

Section 302 Extremely Hazardous Substances: not applicable

Section 313 Toxic Chemical(s): not applicable

Cercla Reportable Quantity: not applicable

MATERIAL SAFETY DATA SHEET

DATE PREPARED:
MSDS No:

COMMON NAME: GARLIC POWDER (USED ON LABEL AND LIST)

May be used with OSHA's Communication Standard. 29CFR 1910.1200, Standard must be consulted for specific requirements.

SECTION 1

Manufacturer's Name:

ATLANTIC QUALITY SPICE & SEASONINGS 20
PRODUCTION WAY, AVENEL, NJ 07001

Phone #: (732) 570-3200 Fax: (732) 574-3344

SECTION 2 - Hazardous Ingredients/Identity

Hazardous Component(s) (chemical & common name(s))

	OSHA PEL	ACOIH TLV	Other Exposure Limits	% (optional)	CAS NO.
NONE					

SECTION 3 - Physical & Chemical Characteristics

Boiling Point - N/A	Specific Gravity (H_2O = 1) - N/A	Vapor Pressure (mm Hg) - N/A
Vapor Density (Air = 1) - N/A< /p >< /p >< /p >		
Solubility in Water - NEGLIGIBLE		Reactivity in Water - NONE
Appearance and Odor - White - Yellow powder, aromatic, strong smelling		
Melting Point - N/A		

SECTION 4. Fire & Explosion Data

Flash Point - N/A	Method Used -	Flammable Limits LEL UEL in Air % by Volume Lower - N/A Upper
Auto Ignition Temperature - N/A		Extinguisher Media - WATER, FOAM, CO2, DRY CHEMICAL
Special Fire Fighting Procedures - USE STANDARD PROCEDURES		
Unusual Fire and Explosion Hazards - NONE		

SECTION 5. Physical Hazards (Reactivity Data)

Stability Unstable [ ] Conditions

Stable [ ] to Avoid - N/A

Incompatibility (Materials to Avoid) - AVOID STRONG OXIDIZING AGENTS

Hazardous Decomposition Products - NONE

Hazardous May Occur [ ] Conditions

Polymerization Will Not Occur [ ] to Avoid - N/A

SECTION 6. Health Hazards

1. Acute - MAY BE IRRITATING TO SKIN AND EYES ON CONTACT

2. Chronic

Signs and Symptoms of Exposure - BURNING SENSATION

Medical Conditions Generally Aggravated By Exposure - SENSITIVE SKIN

Chemical Listed as Carcinogen or Potential Carcinogen - N/A	National Toxicology Program Yes [ ] No [ ]	I.A.R.C. Monographs Yes [ ] No [ ]
		OSHA Yes [ ] No [ ]

Emergency and First Aid Procedures

ROUTES	1. Inhalation - N/A
OF	2. Eyes - FLUSH IMMEIDIATELY WITH CLEAN AFTER FOR AT LEAST 15 MINUTES
ENTRY	3. Skin - NOT A PRIMARY IRRITANT FOR NORMAL SKIN
	4. Ingestion - N/A

SECTION 7. Special Precautions and And Spill/Leak Procedures

Precautions to be Taken in Handling and Storage - N/A

Other Precautions - N/A

Steps to be Taken in Case Material is Released or Spilled - NORMAL CLEAN UP

Waste Disposal Methods (Consult federal, state, and local regulations) - ACCORDING TO CURRENT LAWS

SECTION 8. Special Protection Information/Control Measures

Respiratory Protection (Specify Type) - PAPER OR CLOTH RECOMMENDED

Ventiliation - N/A Local Exhaust - N/A Mechanical (General)- N/A Special-N/A Other

Protective Gloves - RECOMMENDED Eye Protection - RECOMMENDED

Other Protective Clothing or Equipment - N/A

Work Hygienic Practices - N/A

IMPORTANT: Do not leave any blank spaces. If required information is unavailable, unknown or does not apply, so indicate.

MATERIAL SAFETY DATA SHEET

DATE PREPARED: 12/21/1994
MSDS No:

1. Material Identification and Information

Product Name/ Identity: Inedible Egg Product, Denatured w/ Brown Dye

COMPONENTS – Chemical name & Common Names (Hazardous Components 1% or greater; Carcinogens 0.1% or greater)	%	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED
SODIUM ALUMINOSILICATE	LT 1	N/A	10mg/M3	N/A
ANTI-OXIDANT	LT 1	N/A	N/A	N/A
Non-Hazardous Ingredients	98%			
TOTAL	100%			

2. Physical / Chemical Characteristics

Boiling Point: N/A	**Specific Gravity (H20 = D):** N/A
Vapor Pressure (mm Hg and Temperature: N/A	**Melting Point:** N/A
Vapor Density (Air = 1): N/A	**Evaporation Rate (_____= D):** N/A
Solubility in Water: 60%	**Water Reactive:** N/A
Appearance and Odor: EGG ODOR, LIGHT YELLOW TO LIGHT BROWN COLOR POWDER	

3. Fire and Explosion Hazard Data

Flash Point and Method Used: N/A	**Auto-Ignition Temperature:** N/A	**Flammability Limits in Air % by Volume:** N/A	**LEL:** N/A
UEL: N/A	**Extinguisher Media:** Water	**Special Fire Fighting Procedures:** N/A	**Unusual Fire Explosion Hazards:** N/A

4. Reactivity Hazard Data

Stability [X] Stable [ ] Unstable	**Conditions To Avoid:** Avoid areas with a high moisture content
Incompatibility (Materials to Avoid): N/A	
Hazardous Decomposition Products: N/A	
Hazardous Polymerization [ ] May Occur [X] Will Not Occur	**Conditions To Avoid:** N/A

5. Health Hazard Data

Primary Routes of Entry [X] Inhalation [X] Ingestion [X] Skin Absorption [ ] Not Hazardous	**Carcinogen** [ ] NTP [ ] OSHA **Listed In** [ ] IARC Monograph [X] Not Listed
Health Hazards	**Acute:** May Cause Allergic Reactions To All Above Incidents
	Chronic: Same

Signs and Symptoms of Exposure: Allergic Reactions Typically Seen As Mucous Build-up In The Eyes, Nose & Throat
Medical Conditions Generally Aggravated by Exposure: Same
Emergency First Aid Procedures - Seek medical assistance for further treatment, observation and support if necessary.
Eye Contact: Flush With Water
Skin Contact: Wash With Soap And Water
Inhalation: Flush With Water
Ingestion: Flush With Water

6. Control And Protective Measures

Respiratory Protection (Specific Type): OSHA Approved Dust Mask			
Protective Gloves: Recommended		**Eye Protection:** Recommended	
Ventilation To Be Used	**[X]Local Exhaust**	**[X] Mechanical)general)**	**[ ] Special**
	[ ] Other		
Other Protective Clothing and Equipment: Optional			
Hygienic Work Practices:			

7. Precautions For Safe Handling And Use / Leak Procedures

Steps To Be Taken If Material Is Spilled Or Released: Dry Sweep And Dispose Of In Normal Way (If Local Laws Allow) Wash Down With Water	
Waste Disposal Methods: Same As Above	
Precautions to be Taken in Handling and Storage: Dust Glove and Goggles are Optional Dust Mask Is Recommended Store In A Cool Dry Place For Maximum Shelf Life.	
Other Precautions and/or Special Hazards:	
NFPA Rating* Health __ Reactivity__ Special__	**HMIS Rating* Health____ Flammability____ Reactivity____ Personal**

MATERIAL SAFETY DATA SHEET

DATE PREPARED: 01/23/1998
MSDS No:

1. Chemical Product And Company Identification

Product Name: "EASTMAN" Potassium Sorbate, Granular, Kosher

Product Identification Number(s): 19859

Manufacturer/Supplier: Eastman Chemical Company, Kingsport, Tennessee 37662

MSDS Prepared by: Eastman Product Safety and Stewardship, Eastman Chemical Company, Kingsport, TN 37662

For Emergency Health, Safety & Environmental Information: call 800-EASTMAN

For Emergency Transportation Information: call CHEMTREC at 800-424-9300 or call 800-EASTMAN

For Other Information: call your Eastman representative or the Eastman operator at 423-229-2000 (USA)

Chemical Name: 2, 4-heasadienoic acid, potassium salt

Synonym(s): EAN 042182; PM 13373-00; PM 13374-00

Molecular Formula: C6H7KO2

Molecular Weight: 150.22

Product Use: Food Additive

2. Composition/Information On Ingredients

Weight % - Component - (CAS Registry Number)

100 Potassium sorbate (024634-61-5)

3. Hazards Identification

CAUTION!

POWDERED MATERIAL MAY FORM EXPLOSIVE DUST-AIR MIXTURES

HMIS Hazard Ratings: Health - 1, Flammability -1, Chemical Reactiviy - 0

NFPA Hazard Ratings: Health - 1, Flammability -1, Instability - 0

NOTE: HMIS and NFPA ratings involve data and interpretations that may vary from company to company. they are intended only for rapid, general identification of the magnitude of the specific hazard. Te deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

4. First-Aid Measures

Inhalation: If symptomatic, move to fresh air. Get medical attention of symptoms persist.

Eyes: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist.

Skin: Wash with soap and water. Remove contaminated clothing and shoes. If skin irritation or an allergic skin reaction develops, get medical attention. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.

Ingestion: Seek medical advice.

5. Fire Fighting Measures

Extinguishing Media: Water spray, dry chemical.

Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing.

Hazardous Combustion Products: Carbon dioxide, carbon monoxide.

Unusual Fire and Explosion Hazards: Powdered material may form explosive dust-air mixtures.

6. Accidental Release Measures

Sweep or scoop up and remove.

7. Handling And Storage

Personal Precautionary Measures: Avoid prolonged or repeated contact with skin. Wash thoroughly after handling.

Prevention of Fire and Explosion: Keep from contact with oxidizing materials. Minimize dust generation and accumulation. Refer to NFPA Pamphlet No. 654, "Prevention of Fire and Dust Explosions in the Chemical, Dye, Pharmaceutical, and Plastics Industries."

Storage: Keep container closed. This material may be used in food. Protect from contamination. Do not store or ship together with odorous substances, toxic substances.

8. Exposure Controls/Personal Protection

Exposure Limits:

ACGIH Threshold Limit Value (TLV): Not established

OSHA (USA) Permissible Exposure Limit (PEL, 1989 Table Z-1-A values or section-specific standards): Not established

Ventilation: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory protection may be needed in special circumstances such as poorly ventilated spaces, mechanical generation of dusts, heating, drying, etc.

Respiratory Protection: None should be needed

Eye Protection: It is a good industrial hygiene practice to minimize eye contact.

Skin Protection: For operations where prolonged or repeated skin contact may occur, chemical-resistant gloves should be worn. Contact glove manufacturer for specific information.

Recommended Decontamination Facilities: Eye bath, washing facilities.

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9. Physical and Chemical Properties

- **Physical Form:** solid
- **Color:** white; off-white
- **Odor:** odorless
- **Odor Threshold:** not applicable
- **Specific Gravity (water = 1):** 1.36
- **Vapor Pressure:** negligible
- **Vapor Density (Air = 1):** not applicable
- **Evaporation Rate:** not applicable
- **Boiling Point:** not available
- **Melts with Decomposition:** 270 C (518 F)
- **Viscosity at Ambient Temperature:** not available
- **Solubility in Water at 20 C (68 F):** appreciable
- **pH:** 8.0 (at 0.3 g/l water)
- **Octanol/Water Partition Coefficient:** not available
- **Flash Point:** not applicable, combustible solid
- **Lower Explosive Limit:** not applicable
- **Upper Explosive Limit:** not applicable
- **Autoignition Temperature:** not available
- **Sensitivity to mechanical Impact:** insensitive
- **Sensitivity to Static Discharge:** Material is unlikely to accumulate a static charge which could act as an ignition source.

10. Stability And Reactivity

Stability: Stable

Incompatibility: Material can react with strong oxidizing agents

Hazardous Polymerization: Will not occur

11. Toxicological Information

Effects of Exposure:

Inhalation: Low hazard for usual industrial handling or commercial handling by trained personnel.

Eyes: May cause transient irritation.

Skin: Prolonged or repeated contact may cause irritation.

Ingestion: Expected to be a low ingestion hazard.

Acute Toxicity Data:

Oral LD-50 (rat): 6650 mg/kg
Inhalation LC-50: Not available
Dermal LD-50 (rabbit): >7940 mg/kg
Skin irritation (rabbit): slight
Repeated skin application (human): slight to moderate irritation
Eye Irritation (rabbit): slight

Definitions for the following section(s):

LOEL = Lowest-observed-effect level

NOAEL = No observed-adverse-effect level

NOEL = No-observed-effect level

Subchronic Toxicity Data:

Oral Study (3months, rat): LOEL = 5 % in diet (target organ effects: kidney), NOEL = 2 % in diet

Oral Study (3 months, dog): NOEL = 2 % in diet (highest dose tested)

Reproductive Toxicity Data:

Oral Study (rat): NOEL for teratogenicity = 340 mg/kg/day (highest dose tested)

Oral Study (mouse): NOEL for teratogenicity = 460 mg/kg/day (highest dose tested)

Mutagenicity/Genotoxicity Data:

Salmonella typhimurium assay (Ames test): Negative (+/- activation)

Mitotic recombination (Saccharyomyces cervisiae) assay: Negative (+/- activation)

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12. Ecological Information

Introduction: This environmental effects summary is written to assist in addressing emergencies created by an accidental spill which might occur during the shipment of this material, and, in general, it is not meant to address discharges to sanitary sewers or publicly owned treatment works.

Summary: Data for this material have been used to estimate its environmental impact. It has the following properties: a low potential to affect aquatic organisms, a low potential to affect algal growth. when diluted with a large amount of water, this material released directly or indirectly into the environment is not expected to have a significant impact.

Definitions for the following section(s): NOEC = No-observed-effect concentration, LOEC = lowest-observed-effect concentration, MATC = maximum acceptable toxicant concentration.

Acute Algal Effects Data:

24-h EC-50 (Selenastrum capricornutum): >560 mg/L

48-h EC-50 (Selenastrum capricornutum): >560 mg/L

72-h EC-50 (Selenastrum capricornutum): 320 - 560 mg/L

96-h EC-50 (Selenastrum capricornutum): 441 mg/L

96-h EC-50 (Selenastrum capricornutum): 464 mg/L

Acute Aquatic Effects Data:

96-h LC-50 (fathead minnow): 900 mg/L; NOEC: 490 mg/L

96-h LC-50 (rainbow trout): 1100 mg/L; NOEC: 560 mg/L

48-h LC-50 (daphnid): 1700 mg/L; NOEC: 1000 mg/L

13. Disposal Considerations

Discharge, treatment, or disposal may be subject to national, state, or local laws. Incinerate.

14. Transport Information

DOT (USA) Status: not regulated

Air - International Civil Aviation Organization (ICAO), ICAO Status: not regulated

Sea - International Maritime Dangerous Goods (IMDG), IMDG Status: not regulated

15. Regulatory Information

This document has been prepared in accordance with the MSDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

OSHA Classification: Nonhazardous

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986): material(s) known to the State to cause cancer: none

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986): material(s) known to the State to cause adverse reproductive effects: none

This document has been prepared in accordance with the MSDS requirements of the WHMIS Controlled Products Regulation. WHMIS (Canada) Status: Not applicable (exemption)

Carcinogenicity Classification (components present at 0.1% or more): International Agnecy for Research on Cancer (IARC): Not listed

American Conference of Governmental Industrial Hygienists (ACGIH): Not listed

National Toxiclogy Program (NTP): Not listed

Occupational Safety and Health Administration (OSHA): Not listed

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and reauthorization Act (SARA) of 1986 and 40 CFR Part 372: None

SARA (U.S.A.) Sections 311 and 312 hazard classification(s): Not applicable

US Toxic Substances Control Act (TSCA): This product is listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

Canadian Environmental Protection Act (CEPA) and Domestic Substances List (DSL): This product is listed on the DSL or otherwise complies with CEPA new substance notification requirements.

European Inventory of Existing Commercial Chemical Substances (EINECS): This product is listed on EINECS. EINECS Number: 2463761

Australian Inventory of Chemical Substances (AICS) and National Industrial Chemicals Notification and Assessment Scheme (NICNAS.

Japanese Handbook of Existing and New Chemical Substances: This product is listed in the Handbook or has been approved in Japan by new substance notification.

FDA: This product is permitted under existing FDA regulations for use as a food ingredient. Generally Recognized as Safe (GRAS). Applicable FDA regulations: 21 CFR 182.3640

Other Information

Label Statements:

CAUTION!

POWDERED MATERIAL MAY FORM EXPLOSIVE DUST-AIR MIXTURES

Minimize dust generation and accumulation.

Meets Food Chemicals Codex Specification. This material may be used in food. Protect from contamination. Do not store or ship together with odorous substances, toxic substances.

CAUTION: FOR MANUFACTURING, PROCESSING OR REPACKING BY TRAINED PERSONNEL.

MATERIAL SAFETY DATA SHEET

Stepan

1 CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Trade Name **STEPANOL WAC**

Manufacturer Stepan Company
22 West Frontage Road
Northfield , IL 60093 USA

Telephone Numbers - 24 Hour Emergency Assistance

Medical	800-228-5635
Chemtrec	800-424-9300
Chemtrec Int'l	703-527-3887

Telephone Numbers - General Assistance

General	(847) 446-7500

Product Class Alkyl sulfate

Product Number 0685

2 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS Number	Percent
_Water	7732-18-5	68 - 71%
_Sodium lauryl sulfate	151-21-3	28 - 30 %

3 HAZARDS IDENTIFICATION

Emergency Overview

Clear liquid,

May cause moderate to severe irritation to eyes.May cause moderate to severe skin irritation.May cause irritation to the respiratory system.

Health Effects: Eyes

Contact with the eyes may cause moderate to severe eye irritation.

Health Effects: Skin

May cause moderate to severe irritation to the skin.

Health Effects: Inhalation

Inhalation of vapors or mists of the product may be irritating to the respiratory system.

Health Effects: Ingestion

This product may be harmful if it is swallowed.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

Use with adequate ventilation.Local exhaust is suggested for use, where possible, in enclosed or confined spaces.

Personal Protective Equipment: Eyes/Face

Wear chemical goggles; face shield (if splashing is possible).

Personal Protective Equipment: Skin

Wear suitable protective clothing.Use impervious gloves.

Personal Protective Equipment: Respiratory

Under normal conditions, respirator is not normally required.If vapors are present or irritation is experienced, NIOSH approved respiratory protection for organic vapors should be worn.

Personal Protective Equipment: General

Eye wash fountain and emergency showers are recommended.

9 PHYSICAL & CHEMICAL PROPERTIES

Flash Point	(> 93.9 °C), > 201 F PMCC
Boiling Point	(> 100 °C), > 212 F
Specific Gravity	(1.04 g/ml), 8.65 lb/gal @ 25 C
Percent Volatile	68 - 71 %
Vapor Pressure	Not Determined or Unknown
Vapor Density	Estimated lighter than air.
Viscosity	27 cps @ 25 C
Evaporation Rate	Estimated slower than ethyl ether.
RVOC	0 %
pH Value	7.5 - 8.5 (10% in H2O)
Freezing Point	(7.8 °C), 46 F

Appearance and Odor

Clear liquid,

10 STABILITY & REACTIVITY

Chemical Stability

Stable under normal conditions.

Conditions to Avoid

Avoid contact with acids.Avoid strong oxidizing agents.

Incompatibility

This product may react with strong acids or oxidizing agents.

Hazardous Decomposition

Upon decomposition, this product may yield sulfur dioxide and oxides of sulfur.

Inventories

All components of this product are listed on the following inventories:U.S.A.(TSCA), Canada(DSL), Europe(EINECS/ELINCS/Polymer/NLP), Japan(ENCS), Korea(ECL), China (EICS),Australia(AICS), Philippines(PICCS)

There is no calculable reportable quantity (RQ) for this product.

16 OTHER INFORMATION

Disclaimer

Disclaimer: Nothing contained herein grants or extends a license, express or implied, in connection with patents, issued or pending, of the manufacturer or others. The information contained herein is based on the manufacturer's own study and the works of others. The manufacturer makes no warranties, expressed or implied, as to the accuracy, completeness, or adequacy of the information contained herein. The manufacturer shall not be held liable (regardless of fault) to the vendee's employees, or anyone for any direct, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy or furnishing of such information.

HAZARD RATINGS	HMIS	NFPA
Health	2	2
Flammability	1	1
Reactivity	0	0
PPE	X	

Completed On	6/11/04	**Replaces Sheet Dated**	06/11/2004
Completed By	**Product Safety & Compliance**		